



#### STATE OF MONTANA

### BULLETIN

OF THE

## Department of Public Health

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No. 8 and 9

#### MONTANA STATE BOARD OF HEALTH

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#### HELENA. MONTANA

Published Monthly at Helena, by the State Board of Health.

"The science of disease prevention, if properly applied, can add fifteen years to the present average length of human life."—Prof. Irving Fisher, Yale.

This Bulletin will be mailed monthly to any person in Montana upon request mailed to the Secretary of the State Board of Health at Helena.



#### (From Texas Health Bulletin for September, 1911.)

#### INFANT MORTALITY

#### TO A CHILD.

Like the new moon thy life appears, The shadowy disk of future years.

-Longfellow.

The enormous number of deaths of children under three or four years of age, in this State is a dreadful state of affairs and a terrible reflection upon each individual parent of these poor, unfortunate little babies. You, a mother, do you not realize that the tiny little life in your arms is the embryo man?

It is a reproach due more entirely to the family—the members of the household in whose midst the little one first sees the light-of day, is selfishly cared for, neglectfully nourished—and as a result, sorrowfully given up. Some writers reproach, to a great measure, national legislation, legislation of the State, and some lay a great deal of blame upon the medical profession. Comment is made elsewhere in this month's issue on Dr. J. Mark O'Farrel's article in the Texas State Journal for September. The doctor says that "every year our country expends millions of dollars in the encouragement of immigration, but if half the amount were devoted to the reduction of infant mortality we would have a far greater increase in population of the home-grown sort."

If there were a fund set aside devoted to the cause of infantile mortality reduction, I think the initial and primary step would be in educating the parents in child hygiene. We hear and read a great deal of the maternal instinct. When one takes note of the alarming number of deaths in early infancy each month, a reptile of doubt persists in raising its head and will not be put down.

A baby born into this troubled world is entitled to every consideration regarding its welfare and pertaining to its individual possibilities as a citizen. Too great stress cannot be laid upon the importance of proper nourishment. Out of 1000 deaths of infants in New York City from diarrhea, only 90 were breast-fed infants; the cause evidently lies in the food of the bottle-fed baby. When one studies the conditions

under which this article reaches most families, the cause is not hard to find.

City milk supplies are from cows whose condition the consumers usually know little or nothing about, and whose disease may render the milk exceedingly dangerous. The dreaded disease, tuberculosis, is most often contracted in this way. The Michigan Health Bulletin suggests that for the better production of milk, milking should be done in a light, clean barn, and each cow cleaned before using. There should be no unnecessary manure or flies. Milk should be transported at once to the milk depot and shipped to the city in special cars, which are cooled by ice. The Bulletin futher says: "Too often this is not done, the milk being left for several hours around a hot country depot, then transported to the city in an open car, without cooling contrivances of any kind thus rendering much of our milk unfit for use before it has ever reached the consumer. At the city depot it waits for the local milk man, giving the flies another chance to plant disease germs. Finally the milk man comes and takes it to the consumer. Sometimes he has cooling contrivances in his wagon, and sometimes he has not-more often not.

"The mother brings the milk in from the back doorstep, where she has left it in the hot sun because she is so busy. During this time, however, flies have also been busy, and have deposited their quota of deadly germs gleaned from garbage and closets, in baby's milk. What does it matter now if the mother does carefully put the milk in a clean basin in the ice box? Through accumulation of dirt gathered in miles of unprotected warm vehicles, and that deposited by insects after the milk reaches the home, the food is already poisonous. It should be kept cool, covered, and germ-proof.

"Even after it has reached the consumers, a large proportion do not have the means of properly keeping it. Ice boxes are still a luxury, although artificial ones are easily made—but they take ice. The mother makes the milk up into a formula for the baby, and if she is careful feels that the baby is getting good, clean milk. But what a delusion! The milk will not keep, baby's bowels are not right, and he is losing weight. But how could it be otherwise? Milk offers an excellent food for germs, and one germ planted in milk will form 17,000,000 other germs in twenty-four hours. Thus

the milk becomes saturated with germs giving off poisons and undermining the baby's health and finally overwhelming him."

On the other hand, look at the breast-fed baby. He receives his milk supply from a source free from dirt and filth. His supply is direct, eliminating all danger of poison from flies. No wonder the breast-fed baby has a better chance!

Mother's milk is the only natural milk for a baby. Cow's milk differs in its composition from that of mothers and offers at best only a substitute. Why accept substitutes when you can get the genuine? Use a natural food for the baby and give it the chance it merits.

The thing necessary is to have in each household certain definitely established principles regarding the care of the infant, compiled by one who has been taught by experience showing that certain conditions are or are not conductive to the welfare of the child.

Just to have to think that during July and August 892 babies under the age of one year died in the State of Texas should cause every adult in the State to resolve to do all that can be done to abate this disastrous situation. When we add to this for consideration the fact that the great majoriy of these deaths were preventable, it should more than interest the people of Texas; it should call forth volunteers for rescuers of these little fellows, resolving upon more definite action than has ever heretofore been exerted.

CONSIDER THAT THE GREAT FACTOR IN PRE-VENTION IS IN THE HOME ITSELF. Resolve now to interfere and check this disgraceful state of affairs.

There are five leading things to fight: UNWHOLE-SOME MILK, IMPURE WATER, FLIES, DUST, OVER-EXPOSURE TO HEAT. Each of these is a menace to the child, and each is, except in certain unusual and unpreventable circumstances, unnecessary.

The solution of the whole matter rests largely with the mothers and nurses of these infants. It is practically a matter of feeding and of general care.

Erie, (Pa.) recently had an epidemic of typhoid, the recognized king of filth diseases. As a result there are now in force in that town the following sanitary regulations:

All bread must be wrapped at the bakery; the roller towel is

no longer tolerated in public lavatories; all meat and fish dealers and all hotels and restaurants must remove refuse daily and keep same covered, pending removal; piles of refuse in yards must be covered, and a most vigorous and determined fight is being waged against the house fly, which has been well named the typhoid fly.

Must we wait until we have an epidemic of typhoid before we take such precautions?

#### Which do you love most, your Dog or your Baby.

Here is another case illustrating the possible danger of the family pet. This time it is a dog that carried diphtheria from one family to another. The case is made the subject of an official report made by Dr. A. E. Brindley, a medical health officer of Derby, England. After both the wife and child of the owner of the dog had been taken with diphtheria, the dog was brought to the health office and a swabbing taken from its throat showed the presence of diphtheria. Prior to the development of the cases in the home of its owner, the dog had visited at a neighbor's house where a child was ill with diphtheria, and thus became the carrier of infection between the two families.

#### Are We Too Strict with the Dairies.

In the Journal for the American Medical Association for October 28th, 1911, E. B. Bigelow reports an epidemic of typhoid fever in the city of Worcenter traceable to a single milk supply, and finally to a single typhoid carrier, in whom the bacilli were found in the urine but not in the stools, and in whom the Widal reaction was positive.

We have just such carriers in Montana as is illustrated by the following letter received at the office of the Secretary: "Dear Doctor:

I thought it might interest you to know the source of infection of the two Coffman children who had typhoid as shown in the enclosed report. A "typhoid carrier" was the source. A cousin who recently returned from the East was the offender. She had been convalescent for six months but I was able to recover typhoid bacilli from the urine."

This cousin undoubtedly had no idea that she was a "typhoid carrier" and might just as well have been living or

working at a dairy as in a private house. Had she failed to excercise scrupulous care with regard to cleanliness, she would have infected the entire milk supply of the Dairy.

This is only a single instance. Practically all people who have had typhoid fever are typhoid carriers for several months after they have recovered from the disease. We have five or six hundred new "typhoid carriers in this State every year.

### COMMUNICABLE DISEASES REPORTED FOR THE MONTH OF OCTOBER, 1911.

SMALLPOX—Cases of Smallpox were reported as follows: Great Falls 5; Missoula County 1; Total, 6; Total last Month, 7.

DIPHTHERIA—Cascade (Excl. of Great Falls) 1; Great Falls, 2; Anaconda, 5; Helena, 1; Missoula, (Excl. of Missoula). 1; Missoula 1; Ravalli, 1; Butte, 2; Yellowstone (Excl. of Billings) 1; Billings, 1; Total 16; Total last month 9.

SCARLET FEVER—Cases of Scarlet Fever were reported as follows: Beaverhead, 4; Carbon, 2; Anaconda, I; Flathead, (Excl. of Kalispell), I; Gallatin (Excl. of Bozeman), 4; Madison, 2; Butte, 5; Teton, 5; Yellowstone, I; Custer, 9; Silver Bow, (Excl. of Butte) 3. Total, 37; Total last month, 28.

TYPHOID FEVER—Cases of Typhoid Fever were reported as follows: Carbon, 12; Cascade (Excl. of Great Falls), 1; Great Falls, 6 (4 imported); Choteau, 1; Dawson, 1; Fergus, 7; Flathead (Excl. of Kalispell), 1; Kalispell, 3; Gallatin (Excl. of Bozeman) 7; Lewis and Clark (Excl. of Helena) 1; Helena, 4; (2 imported); Missoula City, 5 (3 imported); Musselshell, 1; Sanders, 2; Butte, 5; Teton, 2; Valley, 5; Yellowstone (Excl. of Billings), 9; Billings, 3. Total, 76. Total last month 90.

MEASLES—Cases of Measles were reported as follows: Dawson, I; Lewis and Clark (Excl. of Helena) I; Billings, 2; Total, 4. Total last month 7.

# BIRTHS REPORTED TO THE STATE BOARD OF HEALTH FOR THE MONTH OF OCTOBER, 1911 AND COMPARATIVE BIRTH AND DEATH RECORD IN THE STATE.

Beaverhead	AND DEATH RECO	יוו טאל	1 175	SIAII	= .		
Broadwater		Males	Females	Totals	Deaths	of	of
Tous	Broadwater Carbon Cascade (Excl. of) Great Falls Chouteau Custer Dawson Deer Lodge (Excl. of) Anaconda Fergus Flathead (Excl. of) Kalispell Gallatin (Excl. of) Bozeman Granite Jefferson Lewis nad Clark (Excl. of) Helena Lincoln Madison Meagher Missoula (Excl. of) Missoula (Excl. of) Livingston Powell Ravalli Rosebud Sanders Silver Bow (Excl. of) Butte Sweet Grass Teton Valley Yellowstone (Excl. of) Briscola (Excl. of) Butte Sweet Grass Teton Valley Yellowstone (Excl. of) Billings	10 12 18 11 14 11 15 16 4 12 15 4 5 2 12 12 5 7 9 9 10 11 11 11 11 11 11 11 11 11 11 11 11	3 22 5 19 3 13 16 11 12 3 6 6 10 1 1 17 7 5 8 1 16 2 2 13 6 8 8 15 6 14	4 32 17 17 17 17 17 17 17 17 17 17 17 17 17	4 8 8 7 12 16 12 5 10 12 7 2 4 5 5 11 3 9 3 3 4 1 1 14 5 1 3 5 8 8 5 5 16	24 24 11 19 7 19 20 6 8 3 4 23 4 1 6 7 7 12 2 12 2 12 2 11 5 8 12	122
	Totls	313	317	630	307	337	

This report includes both September and October births. Anaconda report not being received in time for last month's bulletin.

# DEATHS (EXCLUSIVE OF STILLBIRTHS) REPORTED TO THE STATE BOARD OF HEALTH FOR THE MONTH OF OCTOBER, 1911, ARRANGED ACCORDING TO COUNTIES AND CITIES.

Beaverhead	ARRANGED ACCO	RD	IN	G	T	0	CC	U	VT	IE	S	Αľ	N D	) C	;IT	IE	s.			
Broadwater				Tuberculosis	Diphtheria	Scarlet Fever	Measles				Pneumonia	Nephritis			Intestinal	Violence	Suicide	Alcholism	Other	Totals
	Broadwater Carbon Cascade (Eccl. of) Great Falls Chouteau Custer Dawson Deer Lodge (Excl. of) Anaconda Fergus Flathead (Excl. of) Kalispell Gallatin (Excl. of) Bozeman Granite Jefferson Lewis and Clark (Excl. of) Helena Lincoln Madison Meagher Missoula (Excl. of) Missoula City Musselshell Park (Excl. of) Livingston Powell Ravalli Rosebud Sanders Silver Bow (Excl. of) Butte Sweet Grass Teton Valley Yellowstone (Excl. of) Billings													11					55   22   11   18   12   11   18   18   18	4 8 6 18 7 7 12 16 12 5 10 12 2 4 5 5 11 3 9 3 6 6 13 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Population, 375,000.

Monthly death rate per 1,000—.818.

Annual death rate per 1,000—9.81.

This report includes both September and October deaths, report from Anaconda not being received in time for bulletin last month.

### COMMUNICABLE DISEASES REPORTED FOR THE MONTH OF NOVEMBER, 1911.

SMALLPOX—Cases of Smallpox were reported as follows: Cascade (Excl. of Great Falls), 2; Great Falls, 5; Butte, 1; Fiathead, 1; Missoula (Excl. of Missoula City), 4; Sanders, 3. Total 16. Total last month, 6.

DIPHTHERIA—Cases of Diphtheria were reported as follows: Billings, 1: Butte, 2; Cascade (Excl. of Great Falls), 3; Carbon, 4; Choteau, 1; Dawson, 2; Anaconda, 1; Great Falls, 1; Ravalli, 3; Silver Bow (Excl. of Butte), 4; Valley, 8; Total 30. Total last month, 16.

SCARLET FEVER—Cases of Scarlet Fever were reported as follows: Anaconda, 1; Butte, 13; Carbon, 7; Chouteau, 3; Custer, 2; Dawson, 3; Bozeman, 1; Gallatin (Excl. of Bozeman), 6; Silver Bow (Excl. of Butte), 13; Madison, 2; Yellowstone, 1; Teton, 1. Total 30. Total last month, 16.

TYPHOID FEVER—Cases of Typhoid Fever were reported as follows: Billings, 1; Carbon, 7; Custer, 2; Cascade (Excl. of Great Falls), 1; Chouteau, 1; Dawson, 4; Flathead, 1; Fergus, 2; Gallatin (Excl. of Bozeman), 2; Great Falls, 5; Helena, 1; Kalispell, 2; Lincoln, 1; Lewis and Clark (Excl. of Helena), 1; Missoula (Excl. of Missoula), 2; Missoula City, 6; Ravalli, 1; Teton, 1. Total, 41. Total last month, 76.

MEASLES—Cases of Measles were reported as follows: Anaconda, 2; Carbon 2; Flathead (Excl. of Kalispell), 1; Madison, 1; Missoula City, 1; Musselshell, 1. Total, 8. Total last month, 4.

WHOOPING COUGH—Cases of Whooping Cough were reported as follows: Carbon, 3; Flathead (Excl. of Kalispell), I. Total, 4. Total last month, o.

# \*BIRTHS REPORTED TO THE STATE BOARD OF HEALTH FOR THE MONTH OF NOVEMBER, 1911, AND COMPARATIVE BIRTH AND DEATH RECORD IN THE STATE.

	Males	Females	Totals	Deaths	Excess of births	Excess of deaths
Beaverhead Broadwater Carbon Cascade (Excl. of) Great Falls Chouteau Custer Dawson Deer Lodge (Excl. of) Kalispell Gallatin (Excl. of) Kalispell Gallatin (Excl. of) Bozeman Granite Jefferson Lewis and Clark (Excl. of) Hélena Lincoln Madison Meagher Missoula (Excl. of) Missoula City Musselshell Park (Excl. of) Livingston Powell Ravalli Rosebud Sanders Silver Bow (Excl. of) Butte Sweet Grass Teton Valley Yellowstone (Excl. of) Billings	9 117 117 117 118 119 118 119 119 119 119 119 119 119	11 4 22 8 19 8 4 4 13 9 9 10 6 10 8 8 5 5 9 1 10 4 6 11 4 2 4 4 5 12 8 4 4 5 5 9 7 7 7 12	20 5 39 20 36 23 8 27 11 18 24 23 8 19 16 15 16 16 17 16 16 17 18 19 20 31 32 10 9 9 17 18 19 10 10 10 10 10 10 10 10 10 10	1 22 15 7 17 5 6 6 7 8 8 10 2 7 8 4 4 4 8 8 3 14 7 3 8 10 4 1 6 4 4 3 4 4 2 4 7 3 12	19 3 24 13 19 18 2 20 10 14 21 11 13 2 7 5 6 3 5 22 4 5 22 1 1 39 6 12 9 9	77
Totals	325	319	644	279	372	

DEATHS (EXCLUSIVE OF STILLBIRTHS) REPORTED TO THE STATE BOARD OF HEALTH FOR THE MONTH OF NOVEMBER, 1911.

ARRANGED ACCORDING TO COUNTIES AND CITIES.

ARRANGED ACCO	RU	11/	G		) (		U	4 1	11=	S	Ar	10	_C	11	I E	5.			
	Spotted Fever	Small Pox	Tuberculosis	Diphtheria	Scarlet Fever	Measles	Typhoid Fever	Meningitis	Whooping Cough	Pneumonia	Nephritis	Organic Heart Disease	Malignant Tumors	Acute Intestinal Diseases	Violence	Suicide	Alcoholism	All Other Causes	Totals
Beaverhead Broadwater Carbon Cascade (Excl. of) Great Falls Chouteau Custer Dawson Deer Lodge (Excl. of) Anaconda Fergus Flathead (Excl. of) Kalispell Gallatin (Excl. of) Bozeman Granite Jefferson Lewis and Clark (Excl. of) Helena Lincoln Madison Meagher Missoula (Excl. of) Missoula City Musselshell Park (Excl. of) Livingston Powell Ravalli Rosebud Sanders Silver Bow (Excl. of) Butte Sweet Grass Teton Valley Yellostone (Excl. of) Billings Totals			1 1	3			1	1 2				1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			44   22   33   11   12   25   25   25   25   25   25	7 7 8 4 4 4 8 8 3 14 4 1 6 6 4 4 3 4 4 2 4 4 7 7 3 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2

Population—375,009.

Monthly death rate per 1,000 population—.744.

Annual death rate per 1,000 population—8.92.

# IN YOUR BOOK OF REGULATIONS RELATIVE TO THE PURE FOODS AT PAGE 69.

Regulations have been changed to read as follows, as per meeting of the State Board of Health, November 18th, 1911.

REGULATION 1. No building shall be used for stabling cows for dairy purposes which is not properly constructed, well lighted, (two (2) square feet of light for each cow), ventilated, and provided with properly constructed gutters or dropping troughs and a floor that can be readily kept clean and properly drained.

Provided, that in existing dairy barns having not less than one (1) square foot of light per cow, the owner of such barn will be given until June 1st, 1912, to make the necessary changes to provide two (2) square feet of light for each cow.

This does not prohibit a person milking cows for creamery purposes only, from milking in the corral or barnyard, provided such corral or yard is at all times clean and in a sanitary condition.

REGULATION 3. All persons milking any cows must thoroughly wash their hands with soap and water immediately before beginning to milk, and in dairies where the milk is sold direct for human consumption, there must be provided in the dairy barn sufficient wash basins, soap and clean water, where the employees may wash their hands.

REGULATION 4. No cow that is sick shall be kept in the barn with cows used for dairy purposes (this does not apply to cows that have been physically injured), nor shall any cow be permitted to calve in such building, unless such calving cow be confined in a box stall, or separate room.

REGULATION 6. All rooms or stables in which cows are kept for dairy purposes, must be thoroughly clean at all times, and must be painted once every two years, or lime washed once each year.

REGULATION 7. All manure shall be removed from the room or stable in which cows are kept for dairy purposes at least once each day, and they shall not be stored within less than one hundred (100) feet of the stable at any time lafter the first day of May and before the first day of November of each year. Between the first day of November and the thir-

tieth day of April, manure may be stored at a point not less than twenty (20) feet from the barn and all manure thus stored must be removed to a point not less than one hundred (100) feet from the barn, on or before the thirtieth day of April of each year.

Provided, that when manure is placed in an inclosure surrounded by a tight board fence, the drainage of such inclosure being away from the barn and dairy buildings, the removal of manure to a distance of fifty (50) feet from the barn will be permitted.

REGULATION 9. Every person keeping cows shall provide an abundant supply of pure, fresh water for them.

REGULATION 12. Every person keeping cows for dairy purposes, shall provide and use, a sufficient number of pails, cans, or other receptacles, made of glass, stoneware, glazed material, or number one tin, for the reception of, storage and delivery of milk, and shall cause all milk, as soon as drawn from each individual cow, to be strained into a milk can (not to exceed ten (10) gallons), provided with an air tight cover, which cover shall at all times be kept on the can while in the barn, except when the milk is being strained into such can, and the can shall be removed from the barn as soon filled.

REGULATION 13. The milk room shall be thoroughly screened with not coarser than 14 mesh wire gauze and thoroughly protected against flies, properly lighted and ventilated, kept scrupulously clean and free from dust, shall not be used as a living or sleeping room, nor in any way connected with any room used for domestic or other purposes, and shall be separate from the barn or stable in which the cows are kept. It shall be provided with a floor made of cement, tile laid in cement, oiled wood or other impervious material, and shall be provided with pure water and suitable facilities for straining, cooling and storing milk, and washing and sterilizing all utensils and apparatus in which milk is received, stored and delivered. No milk room shall be used for any other purpose than that of handling and storing milk and cream.

Provided, that in dairies where cream is produced only for creamery purposes, and in other dairies where not to exceed four (4) cows are milked, one room of the residence used for other purpoes may be used instead of a milk house, provided, that such rom is at all times kept in a clean and sanitary condition.

REGULATION 14. All cans, measures, bottles and other receptacles of any sort used in the sale or handling of milk shall be sterilized (scalded with boiling water or live steam) daily.

All separators must be thoroughly cleaned and scalded immediately after each using.

REGULATION 15. Immediately upon straining, all milk must be cooled as quickly as possible, to a temperature not exceeding 50 degrees F. and shall be maintained at a temperature of not exceeding 50 degrees F. until deliverd to the consumer.

Provided, that where milk or cream is produced for creamery purposes, only, the cream shall be cooled to as low a temperature as possible with the ice or water available, as soon as separated.

REGULATION 16. All milk cans delivered to creameries or dairies, shall be covered with air-tight lids, and when conveyed in open wagons, shall be covered with a white canvas or clean cloth while being conveyed, and such canvass or clean cloth shall be clean and free from dirt of any kind.

REGULATION 22. The clothing worn by those milking cows or engaged in any way in connection with the handling or delivering of milk at or from any dairy must at all times be thoroughly clean.

In Regulation 32, strike out the words "All pipes used for this purpose must have an internal diameter of at least two (2) inches and must be made of short lengths."

REGULATION 33. All cans, bottles and utensils used in handling milk or cream must be thoroughly washed and sterilized before being returned to the dairyman.

Forma-Germkill has been approved for use as a disinfectant by the State Board of Health of this State.



